10 June 1959

MEMORANDUM FOR THE RECORD

SUBJECT: C-54 Cargo Door Emergency Door Installation

- 1. On 25 May the contractor proceeded to remove the inward opening aft cargo door and install the emergency hinged aft door. The modified cargo door installation was completed 28 May. During the installation period the aircraft was located at Friendship International Airport; Air Mode Hanger. 25X1A
- 2. The aircraft was attended by DPD/Mat. served in the capacity of aircraft inspector. The undersigned and were present during the majority of the installation.

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- and the undersigned observed and participated in operating the door modification upon completion of the installation. The operation of both the forward, inward opening, door and aft, emergency, door were found satisfactory. However, some minor installation discrepancies were noted.

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- plete the installation, due to time limitation, should be mentioned.
- (a) The aft door closure microsvitch was not reinstalled 25X1A will complete the reinstallation.
- (b) The forward door closure microswitch stem exhibited bending upon closing the forward cargo door. The Microswitch bracket should be relocated or shime placed under the microswitch body.
  - (c) Drain holes were not made in the forward cargo door.
- (d) A sliding closure bolt, placed on the lower aft corner of the forward cargo door, was found to be tee long. There is a possibility here of either the anchor cable or static lines becoming fouled during air drop operations. It was suggested that the upper bracket securing the sliding bolt be removed and the bolt length reduced to a minimum.
- (e) A reinfercing plate attached to the upper forward door tracking bracket exhibited poor installation. A bolt and rivet are used to secure this plate. The rivet, which has been poorly installed, should be replaced with a bolt.
- 5. During the installation of the emergency door, the undersigned requested the contractor to relocate theforward door closure crank handle.
  This was done in order to remove the erank from the anchor cable vicinity, when

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the door is in the open position.

Examination of the torque tube linkage of the forward cargo door revealed that several taper pins were badly sheared. These pins were relaced. It was noted that upon lowering the forward cargo door that the upper forward tracking bracket would bettem severely upon a track stop block. A torqueing condition would result and in turn place a shear load upon the taper pins. The stop block has been reduce, to allow the door to bettem on the sill as intended. In addition, the contractor is supplying rubber bumper strips to be added to the bettem of the door for alleviating some of the shock loading in the event the door be dropped. These bumpers will be forwarded to the shock loading in the event the door be dropped.

It was noted that the ditching rope location at the door area should be moved to accompdate the aft emergency door.

6. A set of assembly and detail drawings of the cargo doors were placed abourd the aircraft to facilitate parts replacement if necessary. A second and third set of drawings are being retained by respectively. All drawings of the series 3006-0405 -- apply to the emergency hinged door only. None of the drawings have been revised. However, final project drawings will incorporate any revisions made. Since the drawings presently held by DPD/Mat and the aircraft station are not revised, it is recommended they be used for parts identification only and not fabrication. The primary purpose in issuing drawings at this time was to serve as a parts identification aid. In reference to the drawing being retained by the Aircraft Station, it is recommended that the contractor's identity be removed from all prints as a security measure (title identity attached).

7. At the request of aerial dispatching conveyor (ED-188B) was placed aboard the sircraft for the return trip.

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